

Remarks

Claims 16, 18 – 20 and 28 - 30 are now pending in this application. Further reconsideration is requested. In view of the comments in the Board decision, claims 16 and 18 – 20 have been amended, claims 22 – 24 have been cancelled, and new claims 28 – 30 have been added. No new matter has been added.

Amended Claims are Patentably Distinguished Over the Prior Art

The cited reference JP 11-307791 discloses a solar cell module comprising a plurality of solar cells 1 between a glass plate 3 on the surface side of the module and a light-transmitting sheet 4 on the rear side of the module.

The '791 reference fails to teach the following points:

- a. the glass plate 3 contains sodium;
- b. the resin for adhering the front surface glass at the light incidence side of the solar cell element contains at least 3 $\mu\text{g/g}$ of sodium ion depositing from the front surface glass; or
- c. the solar cell element has a crystalline semiconductor substrate disposed on a side of the resin containing the sodium ion and a p-type amorphous silicon layer disposed on an opposite side of the resin so as to shield a diffusion of the sodium ion from the resin to the semiconductor junction.

Yamagishi (US 6,300,556) discloses using a soda lime glass containing sodium as a surface member (column 7, line 29). However, the glass plate 1 made of soda lime glass in Yamagishi is employed to serve as a substrate on which a tin oxide film 2 is deposited. That is, Yamagishi describes utilizing the soda lime glass as a suitable substrate for depositing the tin oxide film thereon. In contrast, the front surface glass of the present invention as claimed is intended to be adhered at the light incidence side of the solar cell element by resin, Yamagishi fails to describe such a front surface glass to be adhered at the light incidence side of the solar cell element by resin as that of the claimed invention.

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As mentioned above, in Yamagishi, there is no disclosure of a front surface glass containing sodium serving as a member to be adhered at the light incidence side of the solar cell element by resin. Therefore, Yamagishi is also completely silent with respect to the claimed resin for adhering the front surface glass at the light incidence side of the solar cell element containing at least 3 $\mu\text{g/g}$ of sodium ion depositing from the front surface glass.

Brandhorst (US 4, 131,486) and Spitzer (US 4,667,060) have been cited as teaching a photovoltaic junction positioned on the rear side of the solar cell element. However, what is set forth in the present claimed invention is a semiconductor junction formed by an n-type crystalline semiconductor substrate and a p-type amorphous silicon layer. Neither of these references describes the semiconductor junction as claimed in the present invention, and consequently no combination of these references with the primary prior art references would result in the claimed invention.

Conclusion

In view of the foregoing, claims 16, 18-20 and 28-30 are submitted to define patentable subject matter over the prior art of record, whether considered individually or in combination. Further and favorable reconsideration of this application and the issuance of a Notice of Allowance are earnestly solicited.

Respectfully submitted,



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